

SN 09/995,304  
Docket No. S-94,769  
In Response to Office Action dated September 12, 2006

### REMARKS

Applicant appreciates the courtesy shown by the Office, as evidenced by the Final Office Action mailed on September 12, 2006, and the November 15, 2006, telephone interview with Examiner Pensee Do. In that Office Action, the Examiner rejected Claims 1-16. Claims 17-63 were previously canceled. As such, Claims 1-16 remain in the case with none of the claims being allowed.

The September 12 Final Office Action and November 15 interview have been carefully considered. After such consideration, Claim 1 has been amended, and a Request for Continuing Examination (RCE) is submitted herewith. Applicant respectfully requests reconsideration of the application in light of the accompanying amendment and remarks – both of which reflect the content of the November 15 interview – presented herein.

Claims 1-7 and 9-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Miltenyi (US 5,543,289). The Examiner (citing column 7, line 62, to column 8, line 2, of the reference) states that Miltenyi teaches that the magnetic microspheres are passed through a magnetic field to a chamber in which all magnetic particles are retained and then are eventually eluted from the chamber by gradual reduction of the magnetic field across the column. The Examiner considers the reduced magnetic field to be a second magnetic field because it is different than the first magnetic field.

Applicant respectfully disagrees with the rejection of Claim 1 for the reasons given below. Nonetheless, in the interest of advancing prosecution of the instant application, Applicant has elected to amend independent Claim 1 to recite the limitation that the magnetic microspheres pass through a first magnetic field provided by a first magnet to a chamber and a collector disposed in a second magnetic field provided by a second magnet in which magnetic microspheres having different magnetic moments are separated in the presence of the second magnetic field according to trajectories determined by their respective magnetic moments. As previously presented, support for this amendment is found in Figure 1, and on page 11, line 18, to page 13, line 23, of the instant application.

Applicant submits that, in order to anticipate under §102, a reference must teach every element of the claimed invention. Accordingly, Applicant submits that Miltenyi does not teach all of the elements of amended Claim 1.

SN 09/995,304

Docket No. S-94,769

In Response to Office Action dated September 12, 2006

Applicant submits that Miltenyi does not teach passing magnetic microspheres through a first magnetic field provided by a first magnet to a second magnetic field provided by a second magnet. Instead, the reference teaches the use of a single magnet. See, for example, Figure 1; column 10, line 40; and column 4, lines 49-50, of the reference.

In addition, Applicant submits that Miltenyi does not teach separating the magnetic microspheres according to trajectories determined by their respective magnetic moments. There is no mention in the reference of separating microspheres by trajectories. Miltenyi instead teaches that the magnetic microspheres are separated according to magnetic susceptibility by initial capture in a matrix at a high magnetic field strength followed by gradual reduction of the magnetic field across the column to collect fractions of magnetized microspheres. See column 7, line 57, to column 8, line 2, of the reference.

Applicant therefore submits that, because the reference does not teach all of the limitations of Claim 1, the rejection of the claim and those claims dependent thereon under 35 U.S.C. §102(b) as being anticipated by Miltenyi is therefore successfully overcome.

In response to the statement made by the Examiner in the September 12 Final Office Action that the reduced magnetic field to be a second magnetic field because it is different than the first magnetic field, Applicant submits that Miltenyi does *not* teach that the magnetic microspheres pass through a first magnetic field to a chamber and a collector disposed in a second magnetic field in which magnetic microspheres having different magnetic moments are separated in the presence of the second magnetic field according to their respective magnetic moments. In her response to arguments made by the Applicant, the Examiner describes the gradual reduction of the magnetic field across the column and considers the reduced magnetic field to be a second magnetic field. Applicant submits that, contrary to the Examiner's assertion, Miltenyi does not teach the use or presence of two magnetic fields – i.e., first and second magnetic fields. In the portion cited by the Examiner, the reference, in column 7, lines 65-66, refers to the application of *a single magnetic field*. Elsewhere, the reference consistently refers to the use or presence of a *single* magnetic field rather than a plurality of magnetic fields. Nowhere does the reference refer to the use or presence of multiple magnetic fields. For example, in column 10, lines 35-63, the reference describes a column “subjected to *a magnetic field...*,” application of “*the magnetic field ...*,” and the use of “a permanent magnet to create *the magnetic field*” (emphasis added).

SN 09/995,304  
Docket No. S-94,769  
In Response to Office Action dated September 12, 2006

Applicant further submits that Miltenyi does *not* teach passing magnetic microspheres *through* a magnetic field. The reference teaches that a *fluid* containing the magnetic particles is passed through a vessel or column *disposed in* a magnetic gradient. Rather than pass *through* the vessel or column disposed in the magnetic gradient, the magnetized particles *are retained in the gradient*. See column 4, lines 25-35. The retained magnetic microspheres are removed – i.e., ‘pass through’ as described by the Examiner – from the vessel or column only by removing the magnetic field. See column 8, line 7-8.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miltenyi in view of McDevitt et al. (U.S. Patent 6,649,403).

Applicant submits that Claim 8 depends from independent Claim 1, and therefore includes all of the limitations of the base claim by reference. As no outstanding rejections of Claim 1 remain, the claim is now in condition for allowance. Therefore, Claim 8 must also contain allowable subject matter. Thus, the rejection of the claim over Miltenyi in view of McDevitt et al. is now moot.

In light of the amendments and remarks presented herein, Applicant submits that the case is in condition for immediate allowance and respectfully requests such action. If, however, any outstanding issues remain unresolved, the Examiner is invited to telephone the Applicant's counsel at the number provided below.

Respectfully submitted,

Date: 11/30/2006

  
Signature of Attorney

Reg. No. 45,072  
Phone (505) 667-3766

Robert P. Santandrea  
Los Alamos National Laboratory  
LC/IP, MS A187  
Los Alamos, New Mexico 87545